

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP00/07691

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> F23G 7/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> F23G 7/06 B01D 53/34  
F23G 5/14 - 5/18  
F23J 15/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2000  
Kokai Jitsuyo Shinan Koho 1971-2000 Jitsuyo Shinan Toroku Koho 1996-2000

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| X         | JP, 11-218317, A (Ebara Corporation),<br>10 August, 1999 (10.08.99),   | 1,8,9,15              |
| Y         | Full text; Fig. 9 & WO, 9927301, A1 & EP, 1033533, A1  | 2-7,10-14,16          |
| Y         | EP, 819887, A2 (OSAKA SANZO KOGYO LIMITED),<br>21 January, 1998 (21.01.98),<br>Full text; Figs. 1-5 & JP, 10-009551, A & TW, 335437, A & KR, 98005290, A | 2-7,10-13             |
| Y         | JP, 9-21516, A (Iwatani International Corp.),<br>21 January, 1997 (21.01.97),<br>Full text; Fig. 1 (Family: none)  | 6,10-13               |
| Y         | JP, 52-107634, A (Mitsubishi Heavy Industries, Ltd.),<br>09 September, 1997 (09.09.97)<br>Full text; Fig. 5 (Family: none)                               | 6,10-13               |
| Y         | US, 5900217, A (Centrotherm Elektrische Anlagen GmbH & Co.),<br>04 May, 1999 (04.05.99),   | 14                    |

 Further documents are listed in the continuation of Box C.  See patent family annex.

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| * Special categories of cited documents: |  |
| "A"                                      | document defining the general state of the art which is not considered to be of particular relevance   |
| "E"                                      | earlier document but published on or after the international filing date   |
| "L"                                      | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  |
| "O"                                      | document referring to an oral disclosure, use, exhibition or other means   |
| "P"                                      | document published prior to the international filing date but later than the priority date claimed   |
| "T"                                      | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
| "X"                                      | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone   |
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| "&"                                      | document member of the same patent family  |

Date of the actual completion of the international search  
10 January, 2001 (10.01.01)Date of mailing of the international search report  
23 January, 2001 (23.01.01)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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**C.(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
|           | Column 5, lines 20 to 24<br>& WO, 9623173, A1 & EP, 803042, A<br>& JP, 10-510914, A   |                       |
| Y         | EP, 942231, A1 (Tanaka Kikinzoku Kogyo K.K.),<br>15 September, 1999 (15.09.99),<br>Column 10, lines 27 to 32<br>& WO, 9913270, A1 & AU, 9889980, A<br>& JP, 11-82979, A | 16                    |